

Utah Department of Transportation Traffic Operations Center

January 2013

Monthly Report



2060 South 2760 West Salt Lake City, Utah 84104 801-887-3710 www.CommuterLink.Utah.Gov



TOC Mission

- To Support UDOT and the Department of Public Safety in Improving Highway Safety.
- To Help Provide Reliable and Efficient Travel.
- To Provide Useful and Timely Real-time Traffic Information.
- To Work Together with Other Government Agencies to Serve the Public.
- To Provide Excellent Customer Service.

Field Devices Summary

Freeway PTZ Cameras	341	Freeway VMS	84
Arterial PTZ Cameras	382	Surface Street VMS	51
RWIS & Contracted Weather Cameras	165	Portable TOC VMS	6
Viewable Detection Cameras	92	Legacy Trucks Prohibited VMS	21
Total Cameras	980	Total VMS	162
HAR (24 permanent/5 portable)	29	TMS	520
RWIS	75	Traffic Signals Connected to i2TMS	1479
Connected Ramp Meters	65		

Operations Summary

VMS Messages Displayed	153,462	IMT Assists	1936
Signal Timing Work Orders	28	Website Visitor Sessions	1,212,048
R2 Signal Maintenance Work Orders	104	511 Calls	40,534
All New Work Orders	246	Weather Desk Calls	974
Incident Responses by the TOC	1059	Ask CommuterLink Questions	102
Incident Duration Average Minutes	59		

ITS Deployment Highlights

Traveler Information has continued the Citizen Reporter Program training, traveling to St. George and Helper Ports of Entry, as well as numerous Region visits; has continued participating in coordination efforts with the Little Cottonwood Canyon operations group; and attended Continuation of Operations (COOP) working groups to ensure the successful submission of UDOT's COOP Plan.

Traffic Signal Operations has been working on several signal coordination plans throughout the state. These include:

- Logan, including city owned signals
- Washington Blvd
- Harrison Blvd
- Bountiful / Woods Cross - entire city - including city owned signals
- State St. in Salt Lake County
- Bangerter Hwy
- SR-201
- Spanish Fork, including city owned signals
- State St in American Fork, Lindon, and Pleasant Grove
- SR-92
- Telegraph Rd and Green Springs Rd in Washington City

ITS Asset Management continued working to deter wire theft by changing specifications to allow aluminum wire on new projects and wire replacements and making wire more difficult to access and remove.

There were 16 signals, 4 surface street CCTVs, and 7 Liveview CCTVs integrated in January.

ATMS Maintenance

Joint Team Effort: All of the ATMS Maintenance Teams have worked to remove accumulated snow from the TOC public entrances this past month. This not only makes it safer for people to enter the TOC, but keeps the entrances attractive, reflecting the pride we all have in the TOC.

Field Team: The Field Team performed Local Field Operations Tests (LOFT) at three sites in Washington County, and two LFOTs in Taylorsville and on I-15. The Field Team worked with Region 2 Sign Crew to repair Yield and Ramp Meter On signs on I-15. They provided aerial support to Traffic Signal Operations so operational problems with Mountain View Corridor intersection detection connections could be identified and corrected. The Field Team and Traffic & Safety worked to re-power the I-84/I-80 curve warning sign. They continued working with the UDOT Avalanche Control Crew to trouble shoot and repair the portable solar powered message sign. They found the sign was underpowered for the winter canyon location, also increased the solar system so it now can operate 24/7.

This is in addition to the thirty-four work orders that the Field Team closed during January.

Lab Team: The Lab Team repaired 77 electronic devices this month. They also repaired and modified four salvaged signal cabinets, which were then delivered to a contractor to be deployed on a traffic detection upgrade project. The Lab Team performed LFOTs on nine devices for the Mountain View Corridor as they closed eight Travel Management System work orders.

Express Lanes Team: The Express Lanes Team closed 55 work orders over the month, and worked with the Lab Team to correct two AVI failures and replaced one power supply in Utah County.

ATMS cont.

Fiber Team: The Fiber Team dealt with fiber issues on several construction projects this past month. They tested fiber for projects in St. George, Wendover, Riverdale, at the Legacy Hub at US-89, on I-15 CORE and the Mountain View Corridor projects.

Ongoing fiber projects include completing the Perry Hub, Bangerter Hub fiber splicing, checking the uninterruptable power supplies in all the hubs, and updating the Fiber and ATMS Maintenance Contracts.

The Fiber Team has been updating communication hubs because of new fiber from the several construction projects finishing up, and fiber being installed by fiber providers Syringa and Zayo.

Control Room – In January the Control Room Operators were very busy managing the multiple storms that hit Utah. The Operators did a great job of utilizing our ATMS devices to inform travelers of any incidents, road closures, and restrictions that may impact their travel. In fact, evidence of the busy month was noted with a record number of incidents logged into our software. We also fielded a very high number of phone calls to the Control Room and 511 usage was the highest out of the last four January's.

Region 1

Fiber Loop from UDOT Region 1 HQ to I-15:

PS&E has been completed. Funding is needed.

Ogden Area Signal Interconnect:

Concept, locations and design is completed and work is about to begin.

SR 193 Extension:

Have had project identification meeting and will work with Region 1 design to include ATMS. Identified need for fiber along route and drops to five signals and two CCTV cameras. We are awaiting advertisement.

I-15; SR126 to US-91:

This project has been advertised and awarded to Flatiron Construction. This project is near completion.

I-15; I-84 interchange to SR-30:

This project has been awarded to Multiple Concrete Enterprises Inc.. This project is complete.

I-15; SR-30 to the Idaho State line:

This project is being designed by PineTop Engineering and is ready to advertise. Needs major funding for ATMS.

Logan City Main Street Integration:

This project has been awarded to SCI. Construction is complete. Testing and punch list items are ongoing and being mitigated

ITS Deployment Highlights

Region 2- Chris Siavrakas

Region 2 held the annual STIP workshop to present their top projects for this coming fiscal year. There were five top ITS projects included in the presentation.

- Big Cottonwood Canyon Fiber/Devices.
- Little Cottonwood Canyon Fiber/Devices.
- Redundant path to connect the mouth of Big/Little Cottonwood Canyon.
- Closing a gap on Redwood Road between Bangerter to 12600 South.
- Redundant ring connecting with Region 1 on I-84.

Getting these funded will help bring more robust Traveler Information and Traffic Management capabilities in these areas.

Region 3

Region 3 January 2013

- HAR – Audio encoder port problem identified. Working with the Teleste Company to resolve the problem. Halted deployment(s) until we can get resolution.
- SR-92; Timpanogos Highway – Completed the installation of the Westbound Type II VMS just east of I-15.
- SR 248 @ US-40 Fiber – Waiting on completion of SUE to establish if existing utilities are safe from possible relocation.
- US-189; Wallsburg to Heber – Scoped the installation of seven new CCTV's and one new RWIS. Working with Region 3 to establish funding.

Region 4

St. George:

Construction is almost complete.

A change order is in place for the splicing on Telegraph Rd.

There is a contract in place to replace and upgrade all existing canopy radios and connect all or most of the remaining signals to the network.

VMS at I-70 & I-15:

This project is completed. Wire theft issues are being mitigated. The CCTVs and VMSs have been added to Commuterlink.

VMS on I-15 from Scipio to St. George:

Integration is complete and all devices are now working well. They are in a 30 day testing process.

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VMS for I-70 and SR-6:

The concept has been completed and for the three locations; WBI-70 (East of Green River Exit), EB I-70 (Prior to Salina Interchange), SB US-6 (Near Helper and adjacent to Existing NB VMS). The project will need funding of approximately \$900,000.

Fiber upgrade for US-6, Helper and Price Signal Integration:

We are ready to hire a contractor utilizing the fiber procurement contract.

Various Small VMS locations for ICY Bridge, Brian Head and the Beaver Ski resorts, and Halls Crossing at Lake Powell:

Concept and design is complete. Cache Valley Electric has been hired to work on this project.

ITS Deployment Highlights

ITS Standards and Specifications:

Work on Standards remained minor with the emphasis that the February and April meetings will be the last opportunity to make changes prior to the 2013 construction season.

Wayne Jager was assigned to work on AT 7A in order to investigate existing wire theft ideas and concepts and determine which ones will be added to the Standards. HNTB will perform the drafting work when the contracts are complete.

Procurement:

Bid documents for the 334C and 336 were sent to UDOT Procurement for Ad.

The Hand Hole Cover contract for missing traffic signal pole hand holes was finally completed. One vendor protested the award decision so photographs were taken of both products, in-place on hand holes, to establish the fact that one product outperformed the other and the losing product did not meet specifications as advertised.

Consultant Contracting:

UDOT Consultant contracting requested WTO rate review for all work after July 2011. The HNTB ITS contract had one WTO to check for the period of time. The rates were correct for that work task order.

Contract routing from HNTB is ongoing for ATMS Standards.

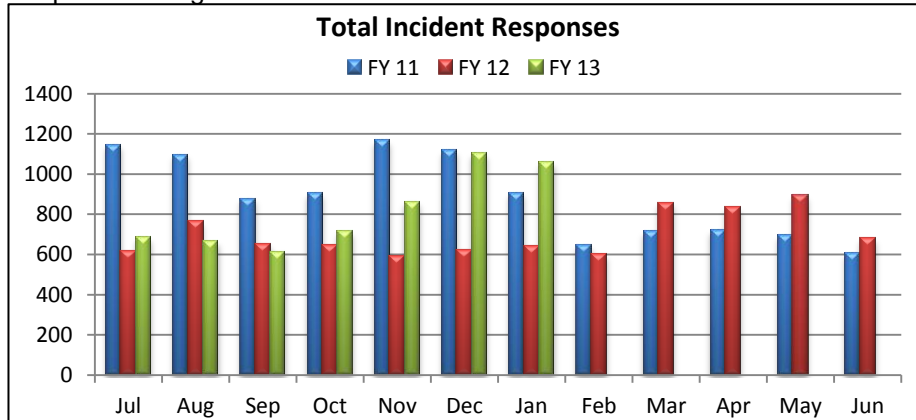
Special Training Sessions:

Attended - ITE Winter Conference

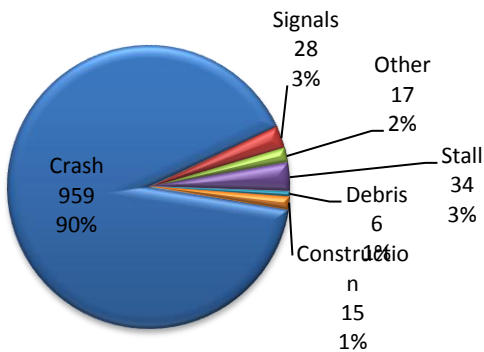
Acronyms

CCTV Closed Circuit Television	I2TMS Integrated Interagency Traffic Management System
RWIS Road-Weather Information System	TOC Traffic Operations Center
DPS Department of Public Safety	VMS Variable Message Sign
TMS Traffic Monitoring Station	ITS Intelligent Transportation System
HAR Highway Advisory Radio	TMD Traffic Management Division

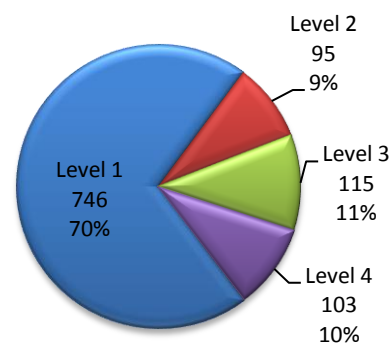
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts. An incident remains active until it has been completely cleared from the roadway.



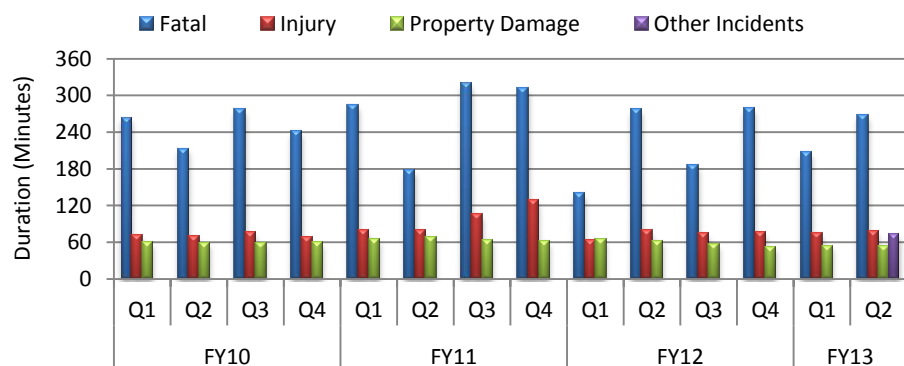
Incidents By Type for January 2013



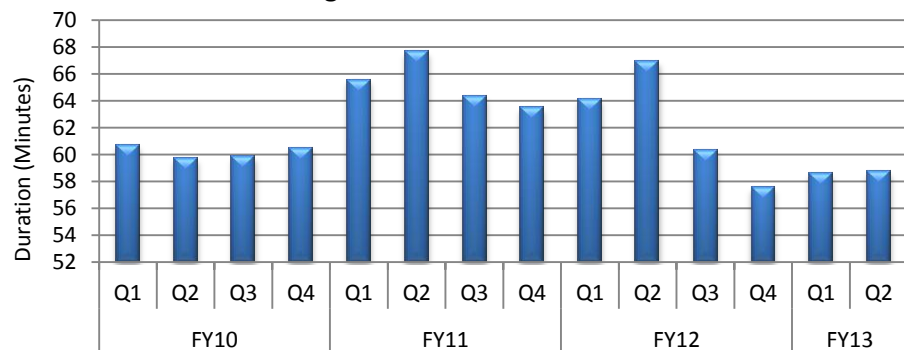
Incidents By Impact Level for January 2013



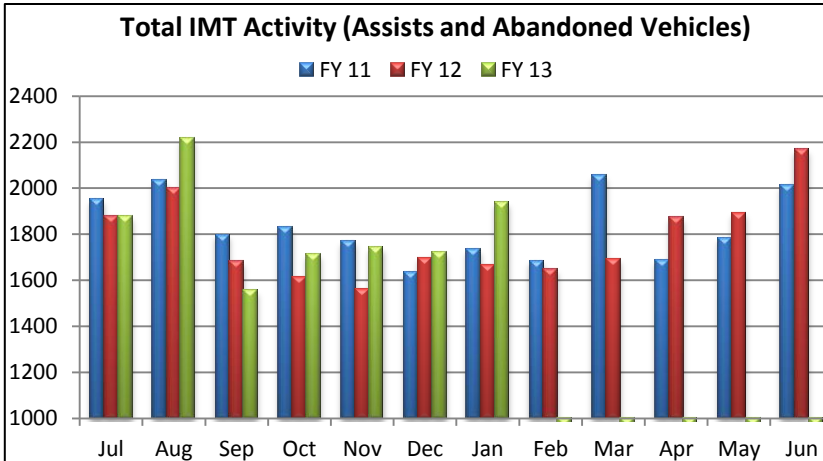
Average Crash Duration



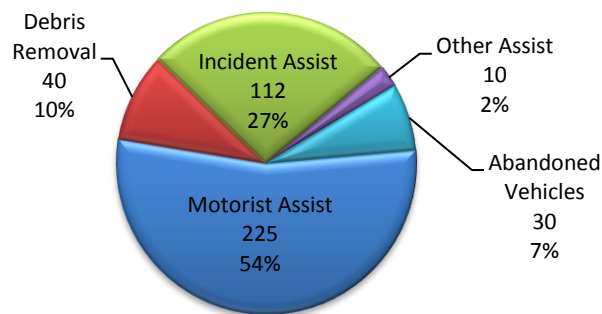
Average Duration of All Incidents



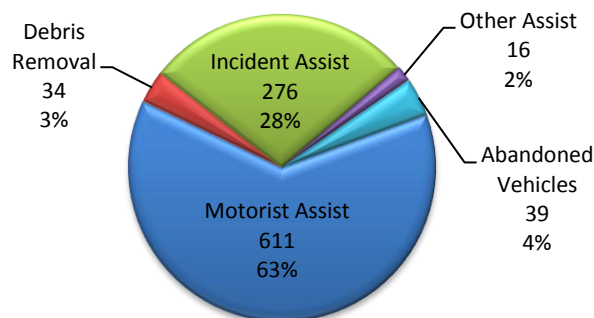
Incident Management Team (IMT) Activities



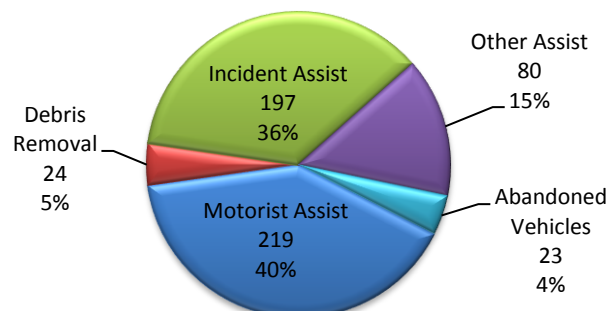
**IMT Activities by Type for UDOT Region 1
January 2013**



**IMT Activities by Type for UDOT Region 2
January 2013**



**IMT Activities by Type for UDOT Region 3
January 2013**



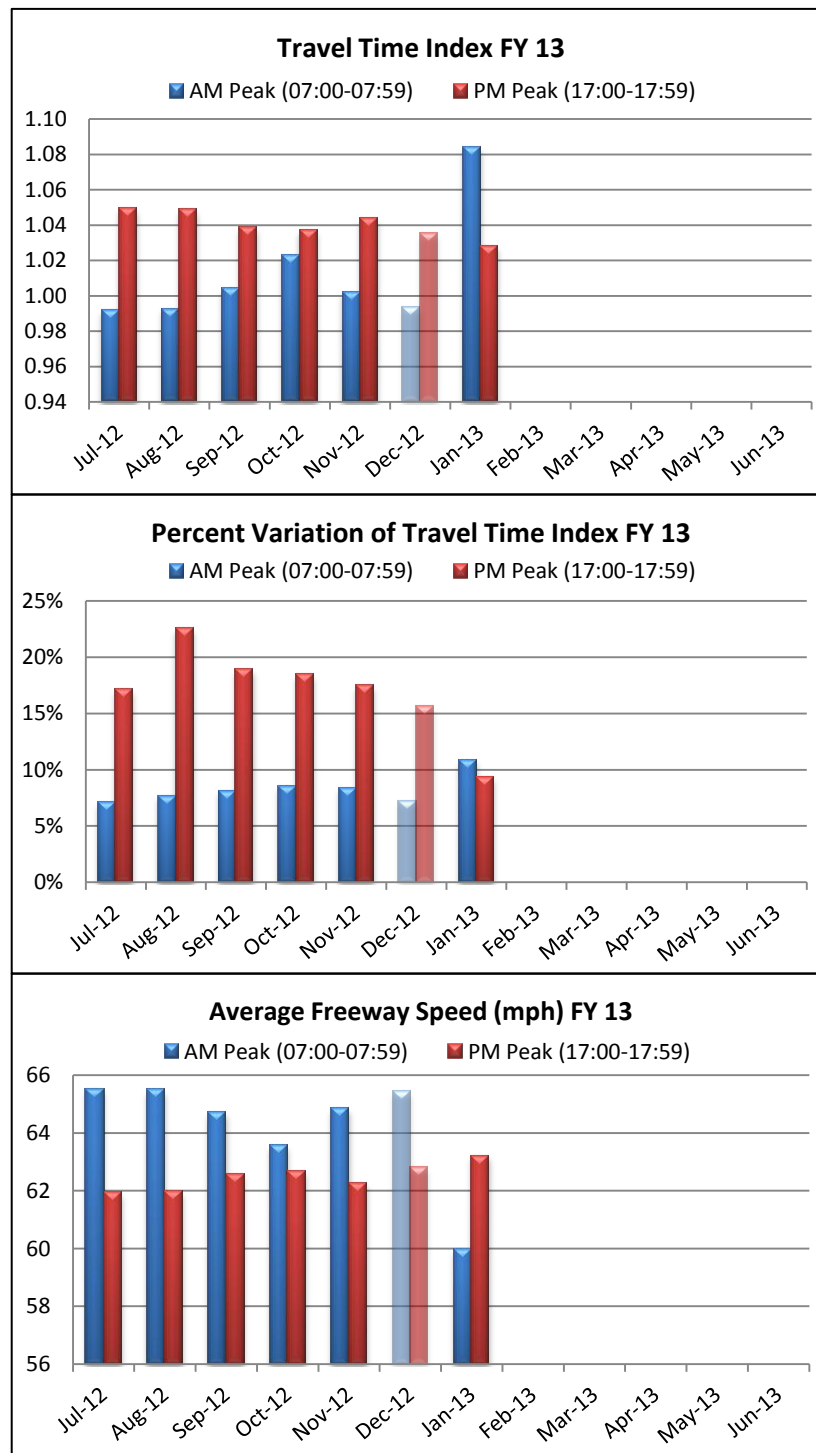
Freeway Traffic Level of Service

Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Wasatch Front. As more TMS sites are installed throughout the state, they will be included in these performance measures.

Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

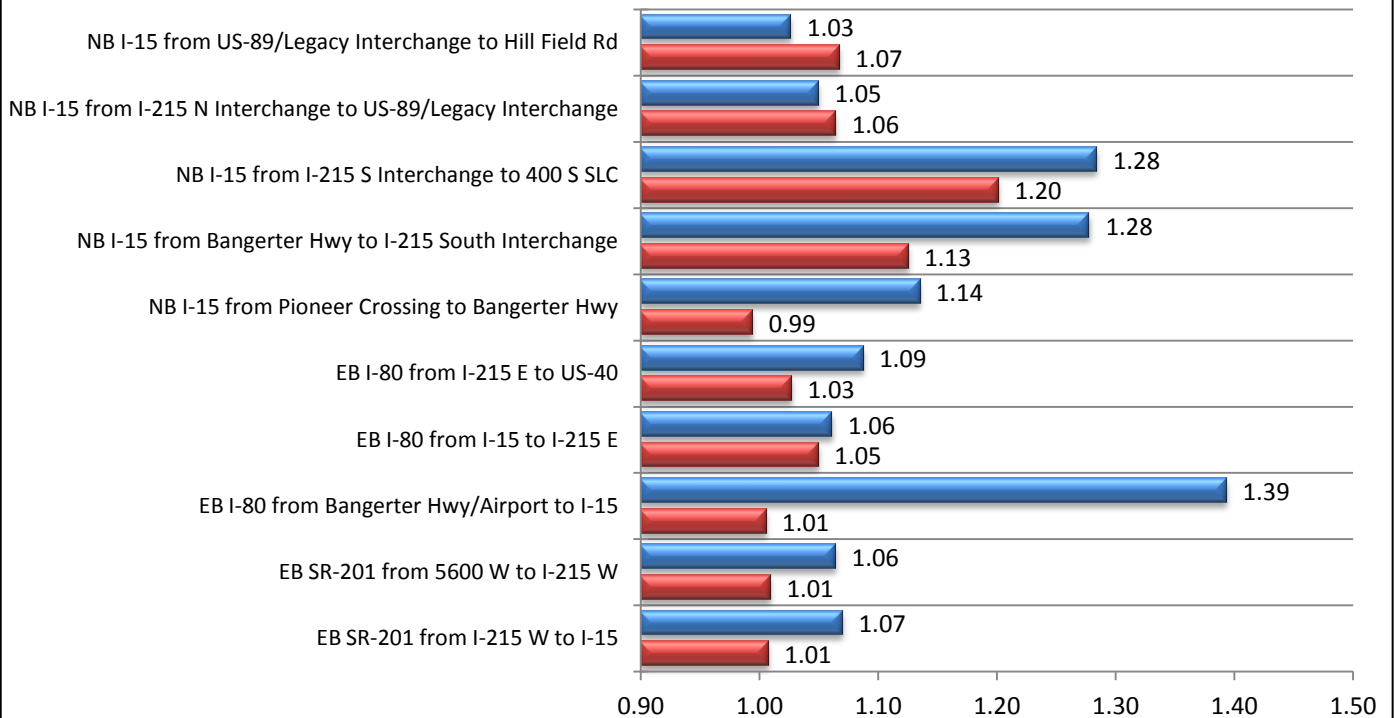
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

Average Freeway Speed: The freeway speed is weighted by volume.



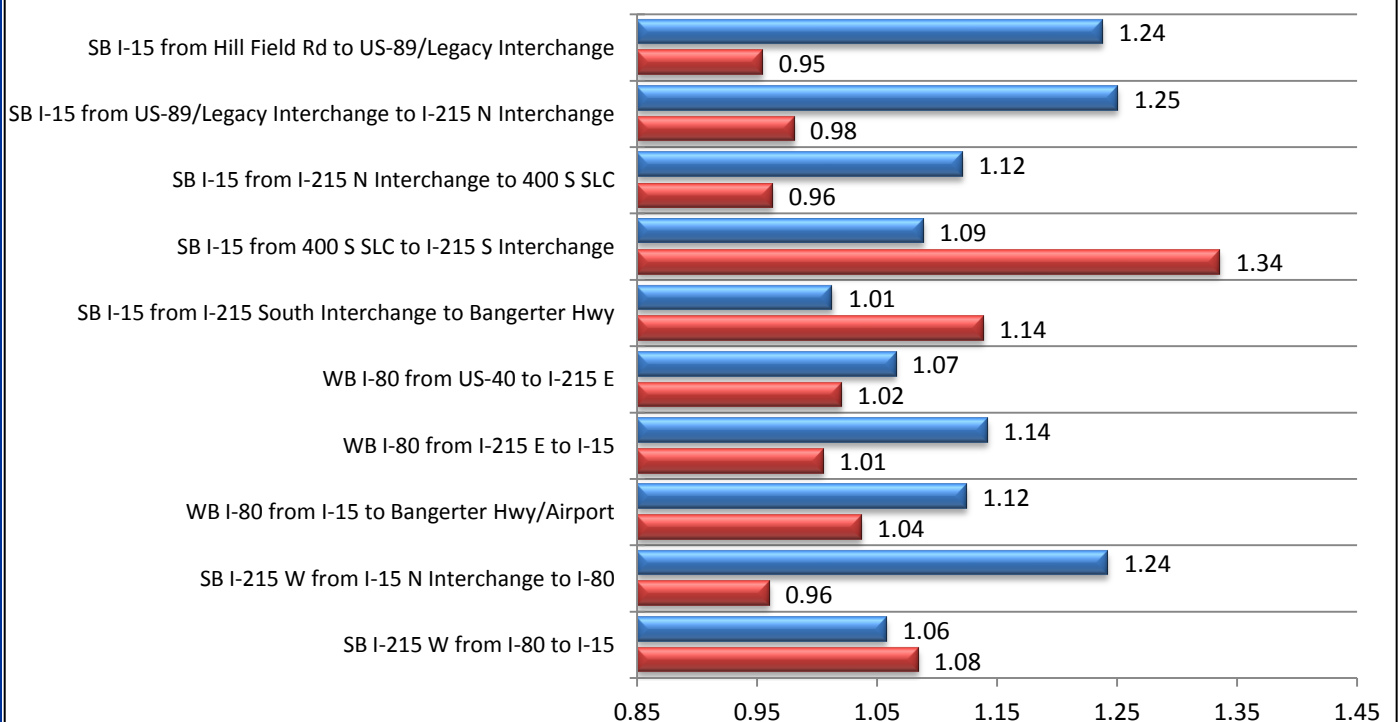
(+) Direction (NB, EB, Clockwise)
Top 10 Peak Travel Time Index by Segment for January 2013

■ AM Peak (07:00-07:59) ■ PM Peak (17:00-17:59)

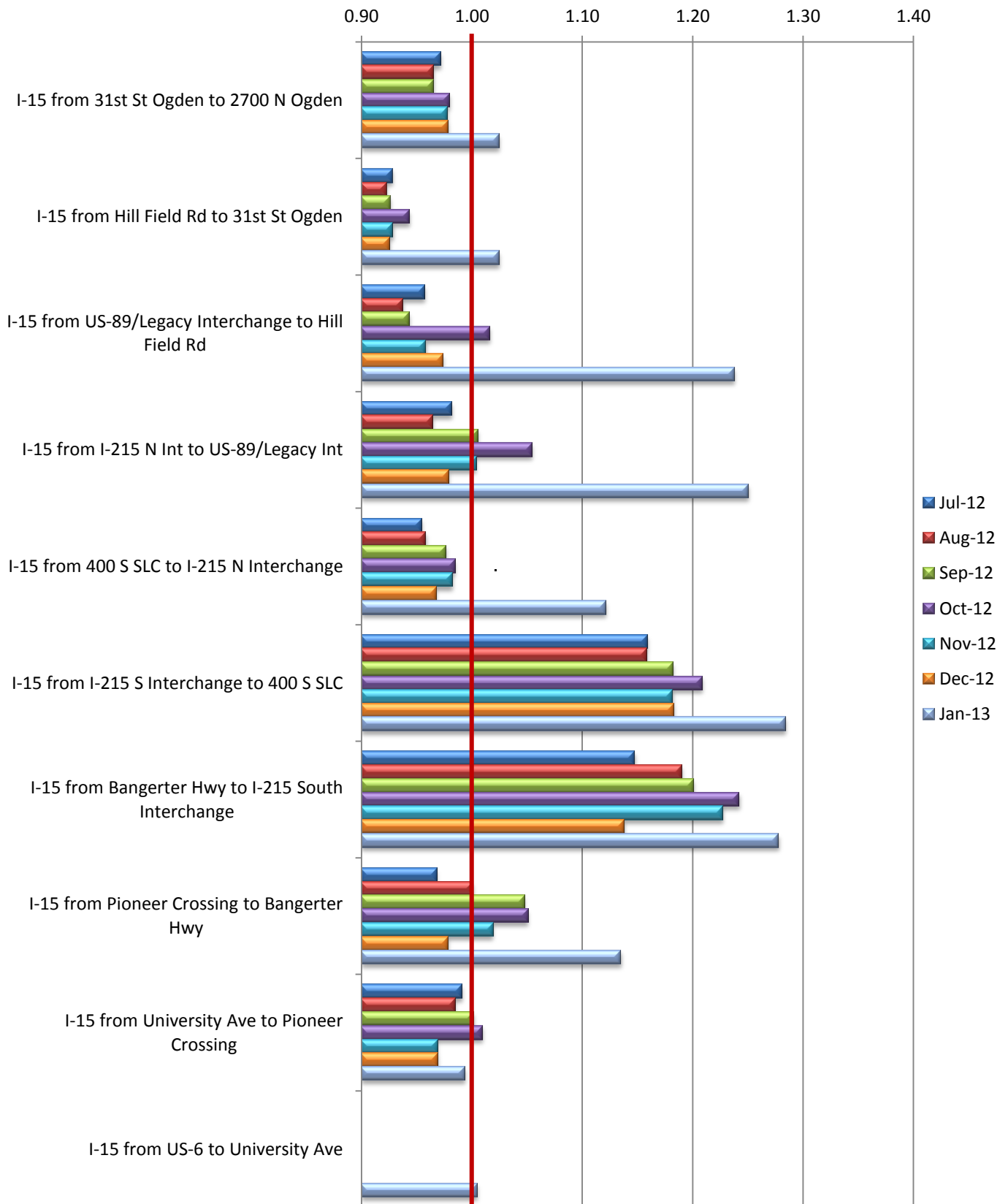


(-) Direction (SB, WB, Counter Clockwise)
Top 10 Peak Travel Time Index by Segment for January 2013

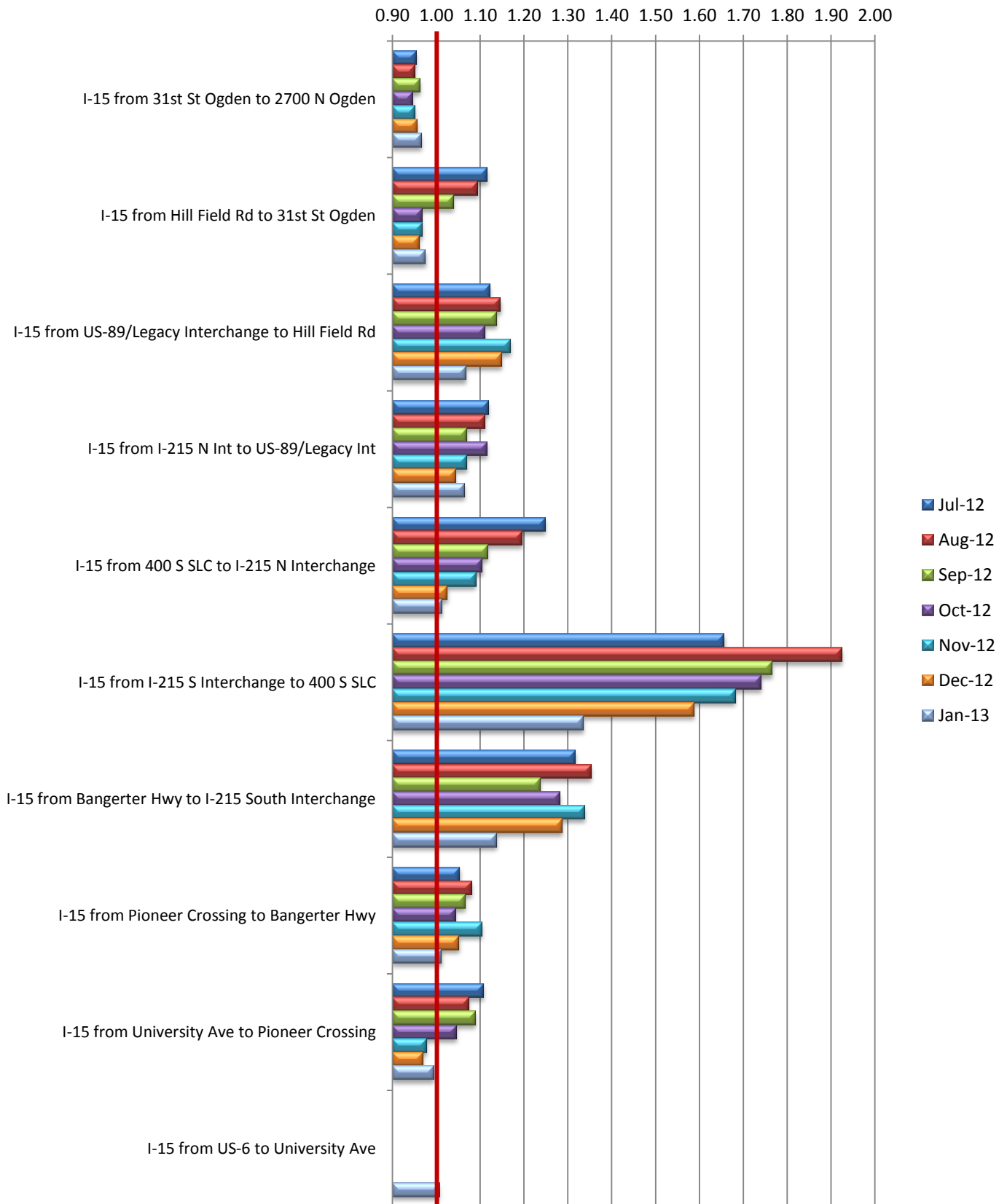
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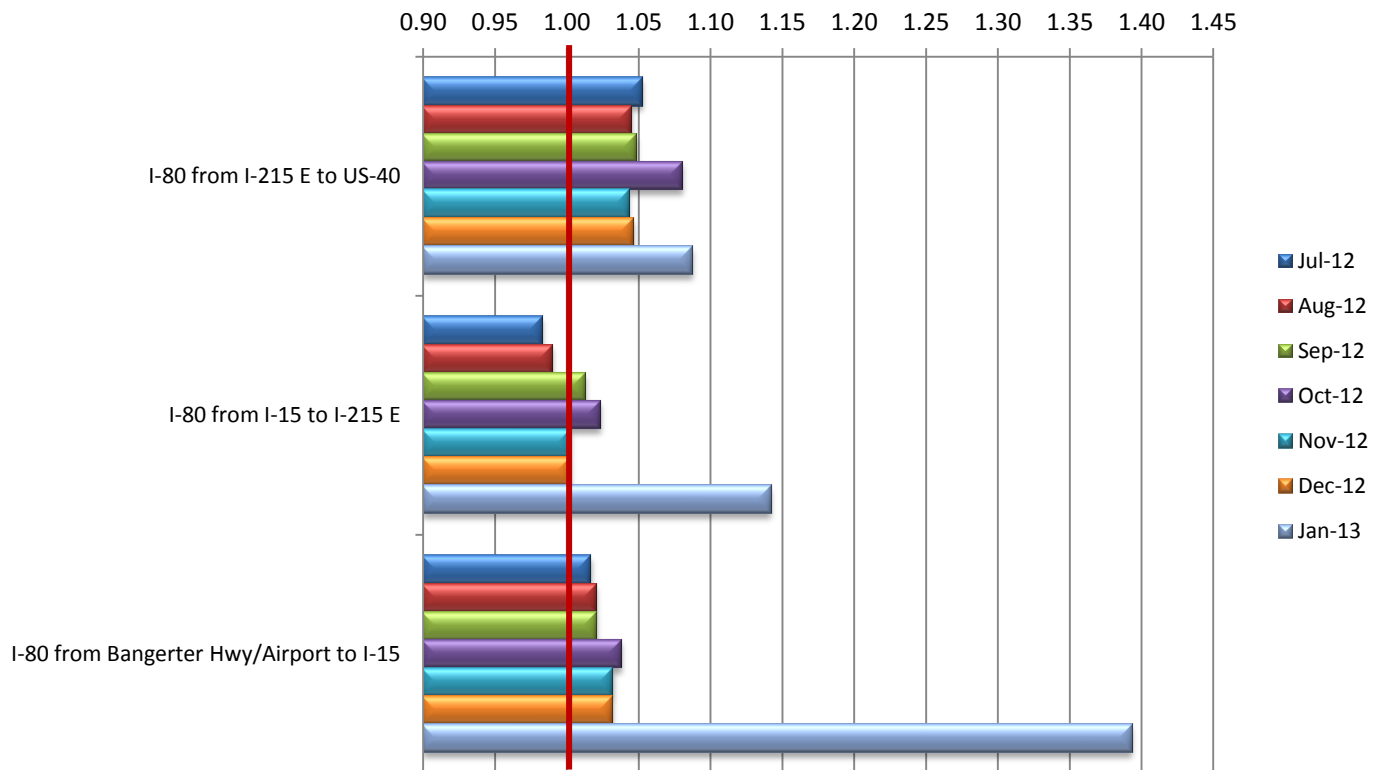
AM Peak Travel Time Index for I-15 FY 13



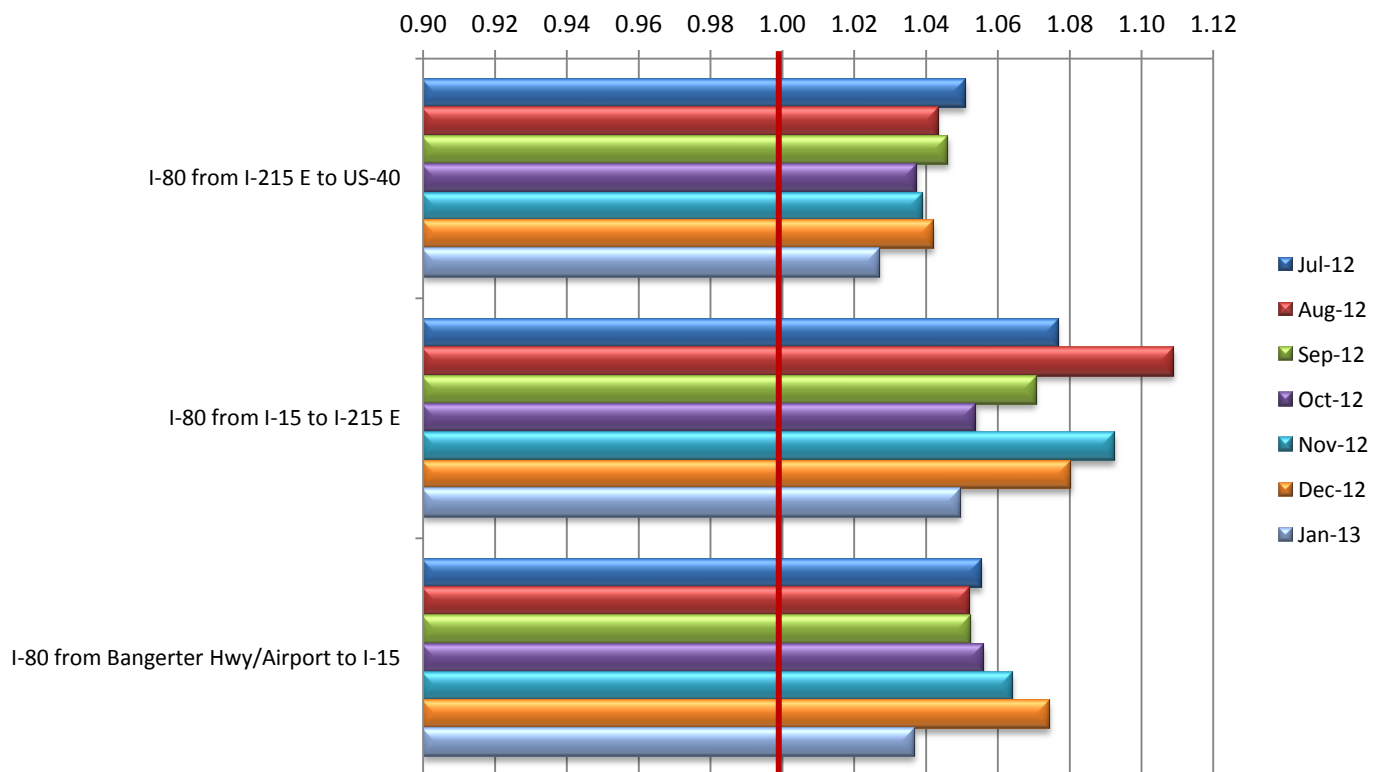
PM Peak Travel Time Index for I-15 FY 13



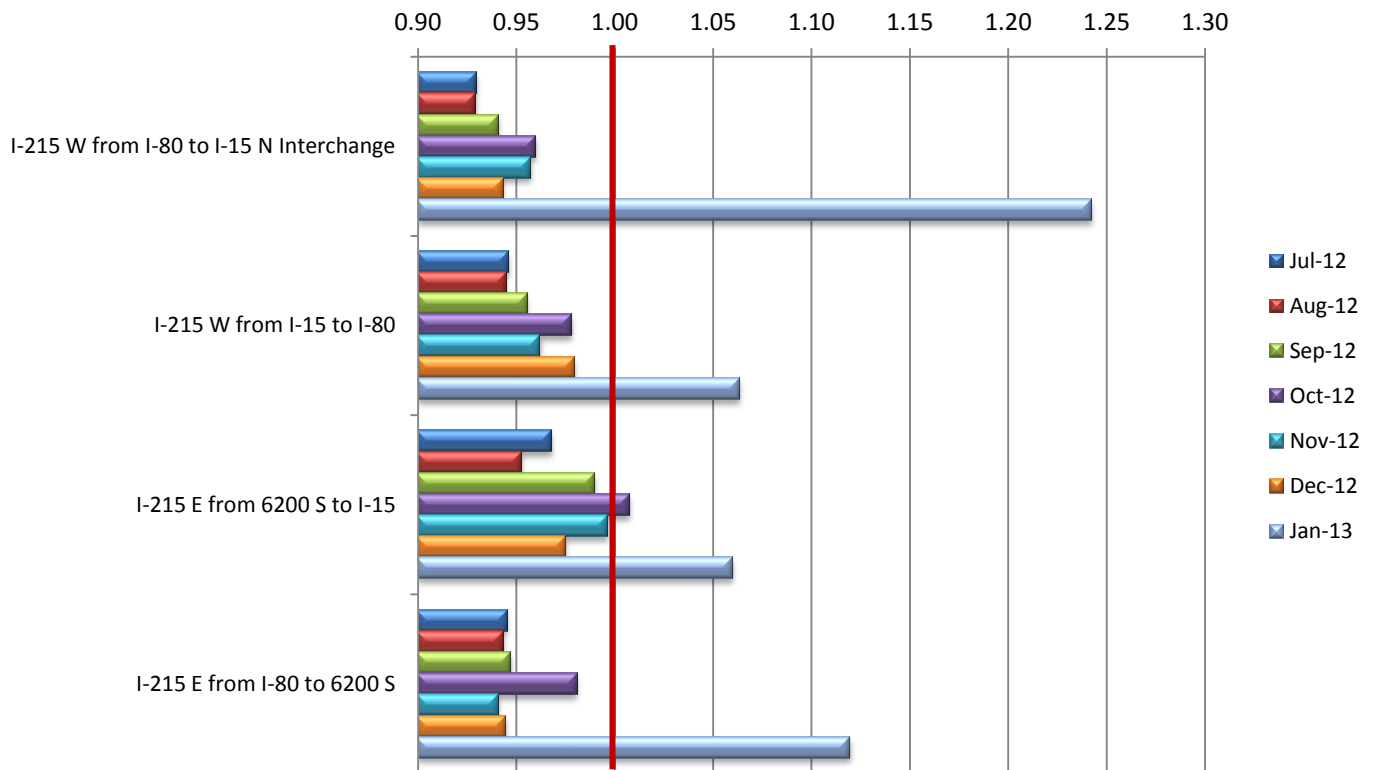
AM Peak Travel Time Index for I-80 FY 13



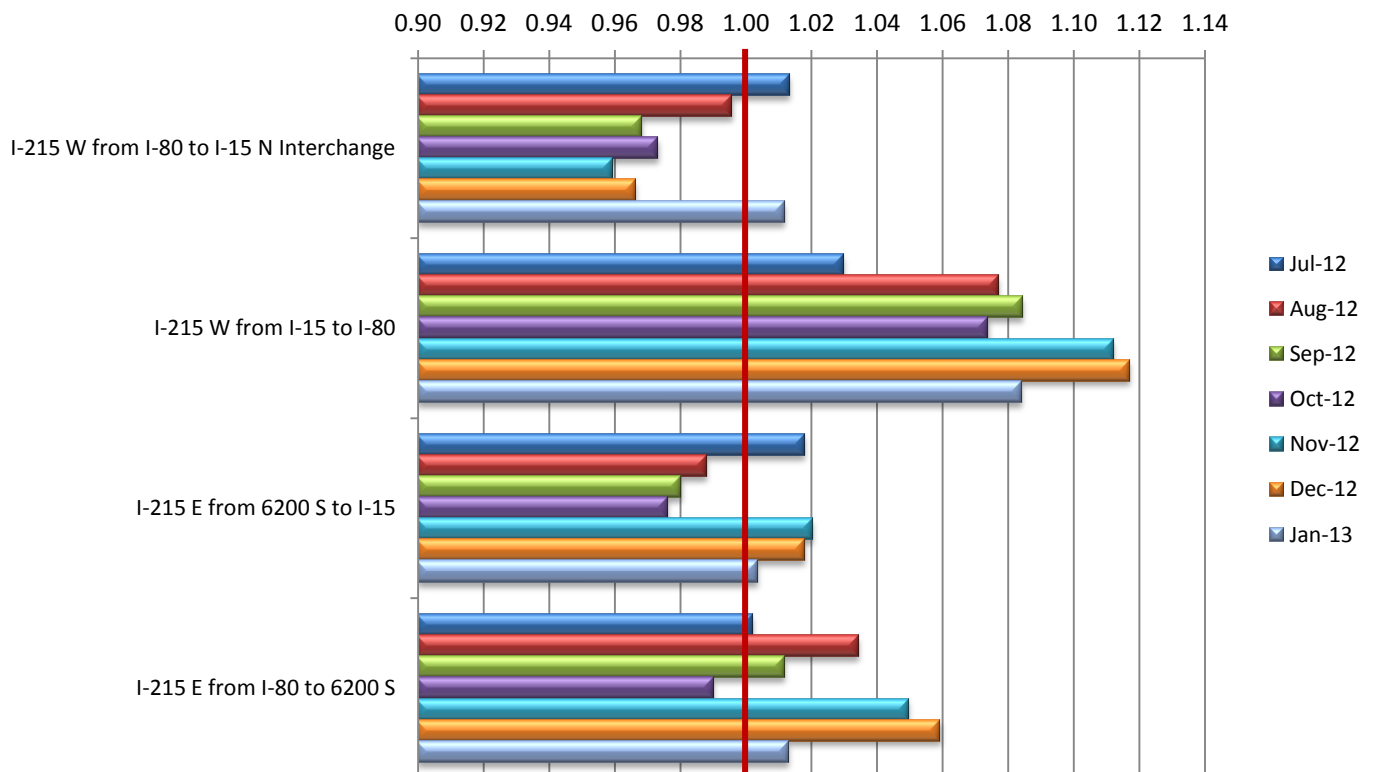
PM Peak Travel Time Index for I-80 FY 13



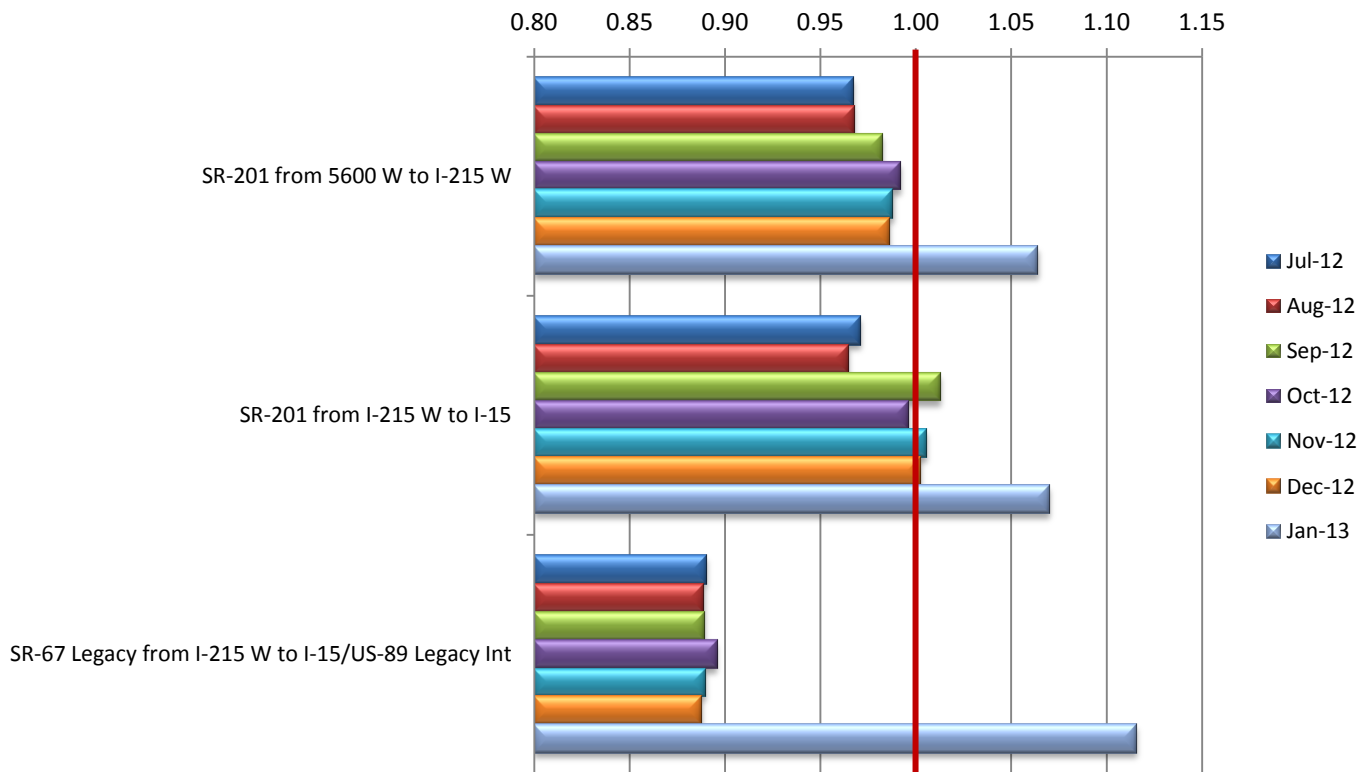
AM Peak Travel Time Index for I-215 FY 13



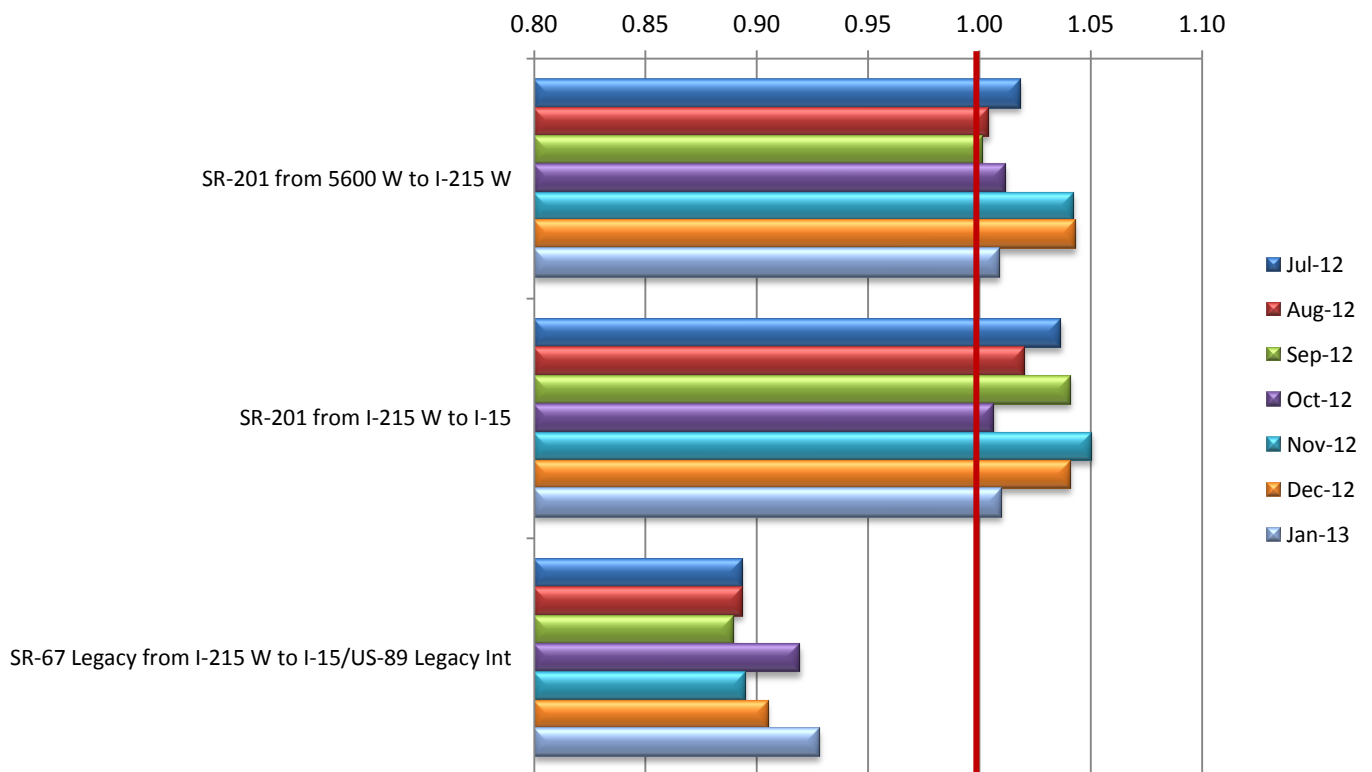
PM Peak Travel Time Index for I-215 FY 13



AM Peak Travel Time Index for SR-201 and SR-67 Legacy Hwy FY 13



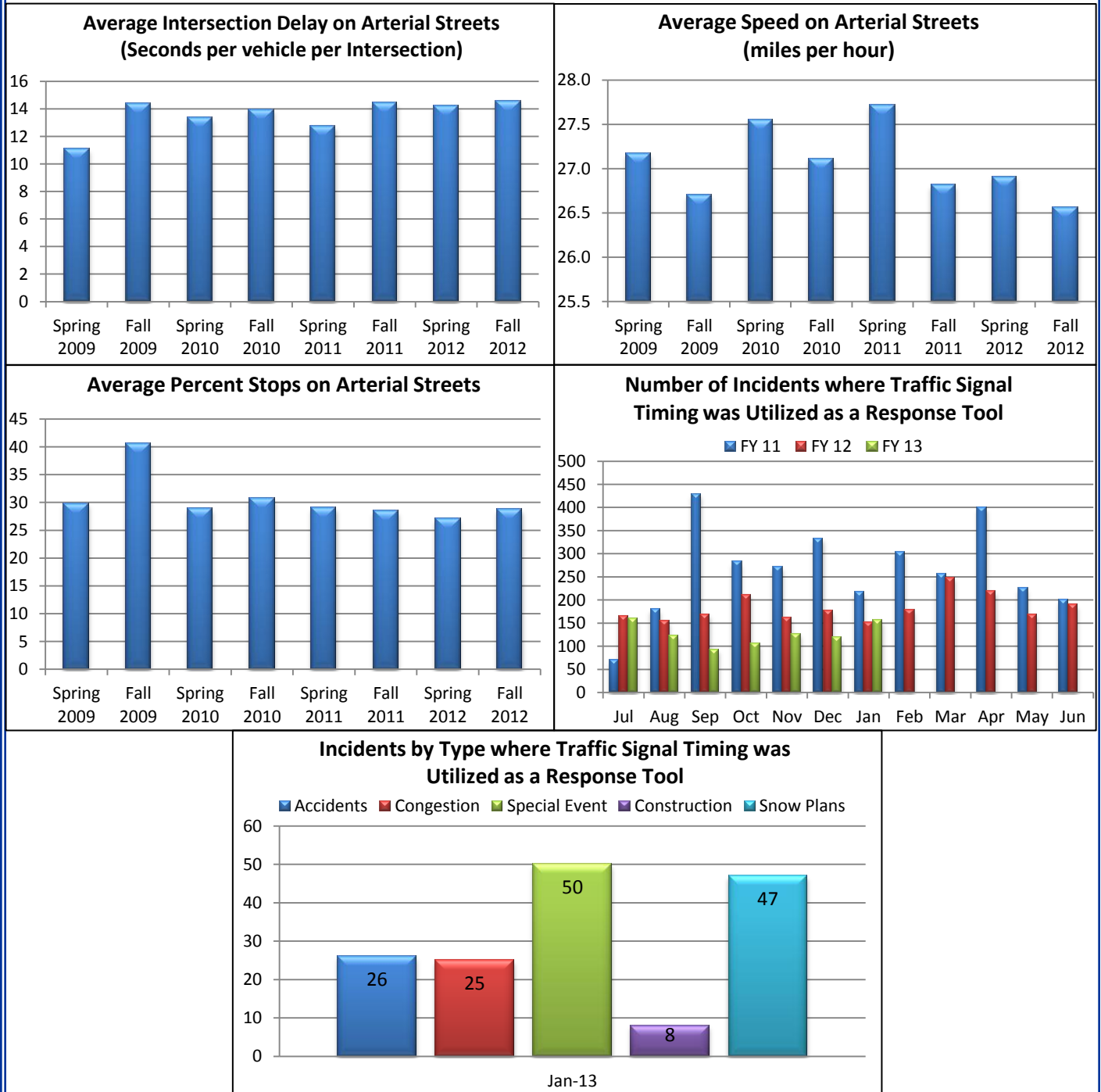
PM Peak Travel Time Index for SR-201 and SR-67 Legacy Hwy FY 13

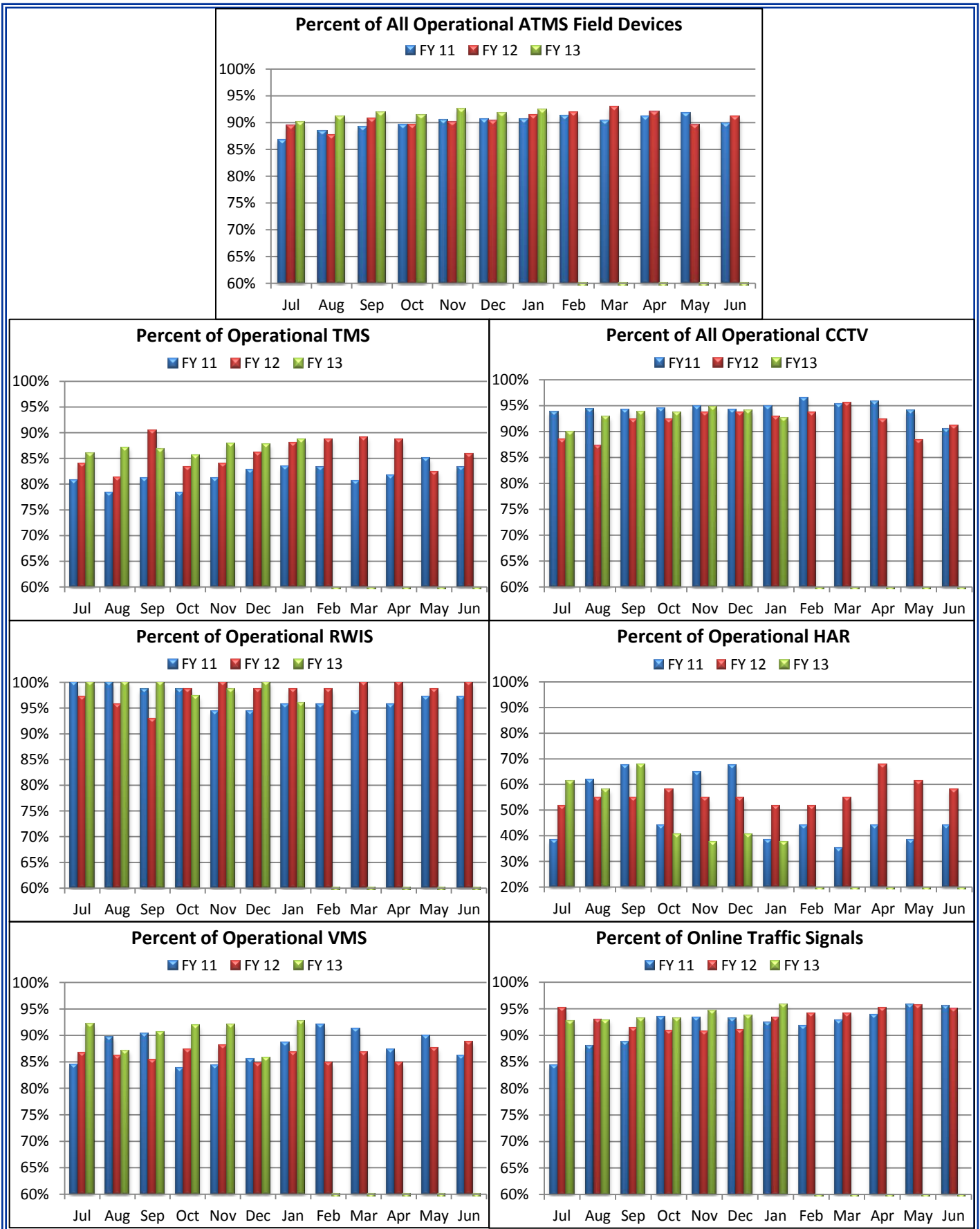


Surface Street Traffic Level of Service

The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right hand corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

The following charts illustrate data gathered during semi-annual timing runs.





Traveler Information

